

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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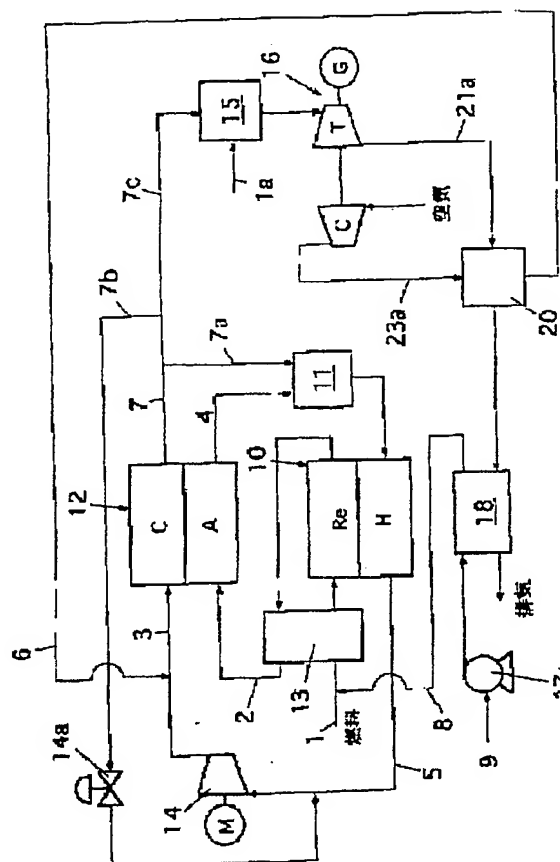
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TITLE : COMBINED POWER GENERATING  
DEVICE OF FUEL CELL WITH GAS  
TURBINE



ABSTRACT : PROBLEM TO BE SOLVED: To provide a combined power generating device of a fuel cell with a gas turbine, capable of keeping the overall generating efficiency high if the output ratio of the gas turbine to the fuel cell deviates from an optimum value and capable of keeping the generating efficiency high if the fuel cell is somewhat deteriorated in performance with the lapse of time, etc.

SOLUTION: This combined power generating device is equipped with a reformer 10 for reforming a fuel gas into a hydrogen-containing anode gas, a fuel cell 12 for generating power from the anode gas and an oxygen-containing cathode gas, a gas-turbine combustor 15 for combusting a fuel with a cathode exhaust gas to produce a high-temperature gas, a gas-turbine generator 16 driven by the high-temperature gas to compress air and to generate power, and a regenerative heat exchanger 20 for preheating air 23a on the outlet side of a compressor by a gas-turbine exhaust gas 21a from the gas-turbine generator 16, thereby adjusting the temperature of air supplied to the fuel cell.

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